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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,217	03/02/2004	Akira Yoneoka	P21-163407M/NY	9855

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EXAMINER	
MITCHELL, KATHERINE W	
ART UNIT	**PAPER NUMBER**
3677	

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/790,217	YONEOKA, AKIRA	
	Examiner	Art Unit	
	Katherine W. Mitchell	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 April 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Examiner notes with appreciation the excellent presentation, including headings with the application serial number on each page.

Specification

2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. **Examples** which are not inclusive of some unclear, inexact or verbose terms used in the specification are:

- Amended paragraph described as beginning on page 6, line 13 has:
    - a first sentence 22 lines long including 14 commas. It is very difficult to follow.
    - a reference to "the engagement portions" in lines 6-7, but has disclosed only an engagement portion.
    - lines 3-4 disclose an inner portion of the leg portion, and an inner surface of the leg portion --- are these the same, or does one denote axial position and one denote radial position? It is confusing.
    - "the flange portion of the grommet has a large-diameter portion of the insertion hole,... – what does this mean?
    - "whose diameter is small than that..." is incorrect
    - "an engagement hole in a position where a bottom portion of the large-diameter portion is adjacent, and an extending portion which is extended

to form a pin hole portion whose diameter is small than that of the large-diameter portion in a free state on a side of a tip where it is far from the flange portion," -- what is "it" – the tip?

- "...displaced to a circumference direction..." is unclear;
- "...and has a lock surface which protrude in a circumference direction in a tip of the shaft portion..." is unclear. What has the lock surface – the shaft portion? If so, that is separated by at least 3 clauses and numerous nouns and is almost impossible to follow:

> *,... the shaft portion has an engagement surface which holds the engagement portion displaced to a circumference direction to keep the flange portion of the grommet in an opened state, in a state that the pin is incorporated into the grommet, in parallel with a center line of the shaft portion and in a direction of the center line of the shaft portion for a predetermined length, and has a lock surface which protrude in a circumference direction in a tip of the shaft portion so as to prevent the engagement portion from falling away from the engagement surface to shift to a state that a diameter of the leg portion become small,...*

- What does this mean:

> *..., and the engagement surface of the pin and lock surface are relatively provided in a shaft direction at a position where the grommet and the pin enable to slide for a predetermined distance in a state that the grommet and the pin are incorporated to be the leg portion opened.*

3. The above is just a detail from 1 amended paragraph. The entire specification must be amended to be in clear, concise, and exact English. Failure to do so will result in the next response being held non-responsive.

4. Examiner notes that "jointing" should probably be --joining-- throughout.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "engagement hole", "inner portion of the leg portion", "inner surface of the leg portion", and "tip end side" must be shown or the feature(s) canceled from the claim(s). Applicant should also carefully review after any amendments to the claims to ensure every claimed limitation is identified in the drawings. No new matter should be entered.

6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

7. Claim 9 is objected to because of the following informalities: "circumference direction" should be --circumferential direction--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

9. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are replete with examples of unclear and imprecise terms, including lack or proper antecedent basis, unclear structural details, and confusing wording. Examples include but are NOT limited to the following:

- Claims 1 and 9 recite a flange portion and a leg portion, with no description of if or how they are structurally related. Then the leg portion is disclosed in which an insertion hole is formed from a center of the flange portion to an inner portion of the leg portion. How is an insertion hole a further limitation of the leg portion? Similarly, the shaft portion of the pin has an engagement surface and a lock surface "at the shaft" each engaging with the engagement portion without positively defining the structure as on or part of the shaft.
  - Further Re claim 9: Claim 9 includes a shaft portion with details of an engagement surface in lines 11-12. Line 22 has the shaft portion [also comprising] an engagement surface... Is this the same engagement surface or a different engagement surface? "An" indicates a second engagement surface, in which case they should be called 1st and 2nd

engagement surfaces. If they are the same, line 22 should read –the engagement surface–. As discussed with respect to the drawings, examiner does not know what an "engagement hole" is or how it differs from an insertion hole, and cannot find this information in the specification or the drawings. How is the engagement hole in a position adjacent the bottom of the large-diameter portion of the insertion hole? How is the pin hole portion (formed by the extending portion) on a side of a tip that is far from the flange portion if the flange comprises the extending portion? What is a tip – is it the same as the later recited "tip of the shaft portion"? How are things "relatively provided in a shaft direction"? – is this an axial direction? Applicant appears to be combining an apparatus with the method of using the apparatus. Apparatus claims should be defined by structure, not function.

- Claims 1-20 disclose structures "formed at" either an inner surface of the leg portion or the shaft portion. "Formed at" is unclear – what structure is it (the engagement portion, the lock surface, and the engagement surface) formed on?
- Claims 2-20 are rejected as depending from claim 1 or 9, respectively.
- Re claim 2: it has been held that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957). It is unclear what is meant by "drawing out direction".

- Claim 3 seems to recite that the lock surface is formed at the **leg portion** of the shaft portion. There is no antecedent basis for "the leg portion of the shaft portion". As discussed in claim 1 above, "formed at" is unclear – what structure is it formed on?
- Claim 4 seems to recite that the lock surface is formed at the **leg portion** of the shaft portion. There is no antecedent basis for "the leg portion of the shaft portion". As discussed in claim 1 above, "formed at" is unclear – what structure is it formed on?
- Re claim 14: What is a tip end side?
- Re claims 17-20: A projection "formed at an edge of said insertion hole on each of said slits on a side of said slits..." does not make sense, as a slit is an opening and thus a hole on each slit on a side of said slits" is unclear and uninterpretable – how does an opening have a hole on its side? What does "a side" of "said slits" mean – do all the slits share a side?

slit (slĭt) *noun*
A long, straight, narrow cut or opening. [1]

Again, these are NON-LIMITING examples only. Applicant needs to completely review each claim and ensure that the claims are clear and definite.

Claim Rejections - 35 USC § 102

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[1]Excerpted from *The American Heritage Dictionary of the English Language, Third Edition* Copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from Lernout & Hauspie Speech Products N.V., further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

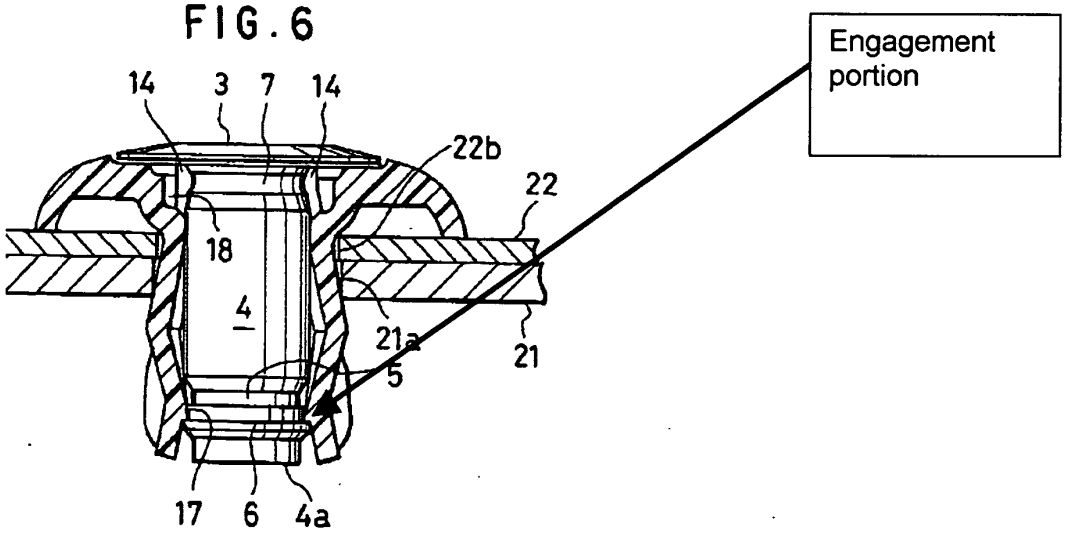
> A person shall be entitled to a patent unless –
>
> *(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the united states.*

11. As best understood by examiner, claims 1- 10 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Asami et al., USP 5568675, hereafter called Asami.

Re claims 1 and 9: Asami teaches a jointing member comprising a pin 1 and grommet 2, wherein the grommet 2 comprises:

- A flange 10
- An openable leg 11
- An insertion hole 8
- An engagement portion (see arrow in Fig 6 below) at the inner surface of the leg portion

FIG. 6

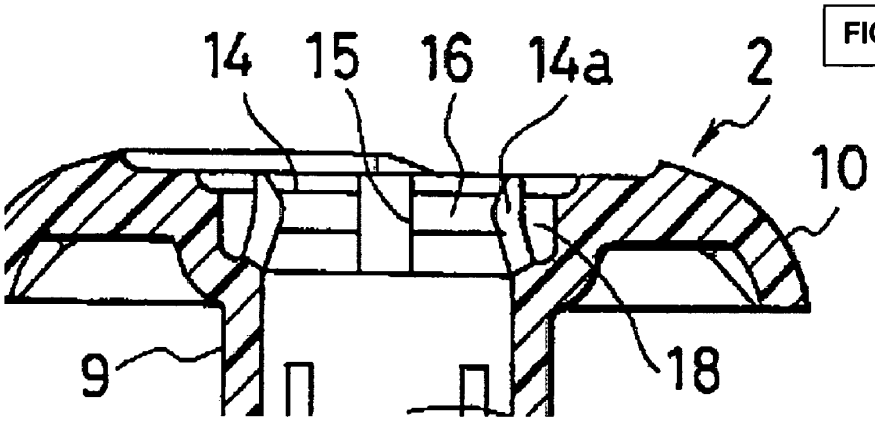


wherein the pin comprises:

- A head portion 3
- An insertable shaft portion 4 with engagement surface 6 (vertical and angled edge) and a lock surface 6 (vertical upper face) are formed at the shaft portion 4.

→**Further Re claim 9 and claim 4:** Wherein the grommet flange comprises: (note the 3 levels of the hole in the flange generally shown in the figure below.

FIG 5



- A large diameter hole portion (uppermost large-diameter hole, pin head rests in)
- An engagement hole (assumed hole extending axially below large diameter hole portion, at level of 14 in Figure 5 above)
- An extending portion (at level of 18 in Figure 5 above) forming a pin-hole portion of smaller diameter than large diameter portion

Wherein the shaft comprises:

- An engagement surface which hold the engagement portion circumferentially displaced to keep the flange open (engagement surface 6 (vertical and angled edge) in a state that the pin is incorporated into the grommet (when the pin is inserted, vertical 6 hold the flange open and aligns with shaft center line) and a

lock surface 6 (vertical upper face) which project circumferentially. Their respective positions enable the pin to slide for a {short but} predetermined distance (the length of the vertical edge of 6) while the grommet and pin are engaged and have the leg portion open.

- Further details of the attachment mechanism are provided by Asami in col 4 lines 20-60.

Re claim 2: The pin is shown as movable between Figs 1, 2, and 6. Note that the engagement portion is considered the vertical side, and until the horizontal surface 6 locks, the pin is movable in a drawing out [assumed axially upward] movement).

Re claim 3: Since there is not shaft leg portion, examiner cannot understand the claim. However, it appears that Asami has the leg engagement portion engage the lock surface (horizontal surface of 6) and the leg portion remain open (Fig 6 and 7).

Re claims 5-8 and 10: A tip end of the shaft is buried in the insertion hole of the grommet when the grommet leg engagement portion engages the shaft engagement surface. It has been held that the functional "whereby" (or wherein – examiner) statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957).

Re claim 12: The engagement portion protrudes from the inner surface of said leg portion, as shown in Fig 6.

Re claim 13: Slits 13 are shown in the Figures dividing the legs into a plurality of leg portion pieces – see also col 3 lines 51-53.

Re claim 14: Having no guidance as to the tip end side of said leg portion, examiner considers the engagement portion of Asami formed on the tip end side.

Re claims 15-16: A plurality of insertion tool grooves 12 are taught in col 3 lines 47-51 and Fig 3.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asami.

Re claim 11: As discussed above when discussing claim 9, Asami teaches all the elements of claim 11 except that the predetermined distance of travel that the grommet and pin are allowed to slide is .5 mm to 2 mm. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have sized the fastener to allow sliding in this predetermined range, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

14. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asami in view of Arisaka et al USP 6048147, hereafter called Arisaka.

Re claim 17-20: As discussed above, examiner does not understand the claim as written. Examiner does not understand how a projection can be formed at an edge of a hole on a slit, since the slit is a void. However, Arisaka teaches a fastener comprising a

pin and grommet, and further teaches ribs and projections, as described in col 2 line60 – col 3 line 25 and Fig 1. Figs 1 5, and 6 show the ribs having a bent portion. Examiner notes that applicant did not claim "directly" adjacent or "directly formed" at or along. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Asami and Arisaka before him at the time the invention was made, to modify Asami as taught by Arisaka to include ribs and projections, in order to obtain higher strength of the pin and a firmer and correctly aligned attachment of the pin and grommet. One would have been motivated to make such a combination it is possible to guarantee more reliable temporary assembling conditions would have been obtained, as taught/suggested by Arisaka in col 3 lines 1-2 and col 5 lines 6-48.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Note that examiner will have a new phone number after March 31, 2005: **(571)272-7069.**

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell
Examiner
Art Unit 3677

Kwm
3/22/2005